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ABSTRACT

With a view toward improving allocation of funds, this study analyzed the ordering of agricultural extension publications during 1965-67 by the 95 agricultural Extension staffs in Tennessee. Ten variables in ordering behavior, and four relating to programs, were considered. Data from 1,559 order forms were reported in numbers, percentages, averages, and county rank in terms of orders placed. Major findings included these: (1) high and low ordering counties tended to use the prescribed order form and have the county agricultural agent initiate orders, but failed to pool orders (except for low ordering staffs) to confine orders to an average of one every two months; (2) farm crops and fertilizers; fruits and vegetables; and insects, plant diseases, and pests account for almost 2/3 of all copies of agricultural extension publications ordered; (3) 3/5 of all copies were ordered by the 32 high ordering counties; (4) the county appropriation to county agricultural agents was the most accurate predictor of the total number of copies ordered for the state, while numbers of full time farm family equivalents were the best predictor for the 32 lowest ordering counties. (LY)

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A Research Summary of a Graduate Study

A STUDY OF ORDERING PATTERNS OF EXTENSION AGENTS IN TENNESSEE COUNTIES FOR SELECTED TENNESSEE AGRICULTURAL EXTENSION PUBLICATIONS WITH AGRICULTURAL TITLES DURING THE TWO-YEAR PERIOD, JULY 1, 1965 - JUNE 30, 1967

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ABSTRACT

This benchmark study was concerned with the problem of too rapidly increasing expenditures for publishing and distributing agricultural-titled Extension publications. Publication ordering patterns for all 95 Tennessee county Extension staffs were studied. Also, ten variables concerning county Extension programs and four variables concerning agricultural-titled Extension publication ordering patterns per county were investigated. The purpose was to obtain information concerning publication ordering patterns which would be helpful to Extension administrators in the future allocation of funds and to identify the association between certain county Extension program variables and the publication ordering patterns of the county Extension staffs. Data were drawn from publication order forms on file from all Tennessee counties for the period, 1965-1967, and from other secondary sources. Tabulated data were reported in numbers, per cents and averages where appropriate for total, high order (numerically ranking from first through thirty-second in numbers of copies of publications ordered), medium order (numerically ranking from 33-63), and low order (numerically ranking from 64-95) counties. Main comparisons were between high and low order counties. Also, a step-wise multiple regression analysis was made with the assistance of the University of Tennessee Computer Center.

Findings disclosed that the county Extension staffs for the State, high order and low order counties tended to "use order Form 559" (Ordering Procedure A) and "have the county agricultural agent initiate the order" (Ordering Procedure B) as recommended; but that the staffs did not tend to follow recommended Ordering Procedures C and D, namely: "averaging no more than one order every two months" (excepting for low order county staffs), and "pooling orders", respectively. Three of the eleven Extension publication title classes, namely: (1) farm crops and fertilizers, (2) fruits and vegetables, and (3) insects, plant diseases and pests accounted for almost two-thirds of all copies of agricultural-titled Extension publications ordered, 1965-1967, and approximately one-half of the total copies on hand at inventory time, 1967. Slightly less than two-thirds of all copies of publications ordered by county staffs in the state 1965-1967 were accounted for in the inventory, 1967. Three-fifths of all copies of publications ordered in the state were ordered by the 32 high order counties. One-half of all copies of publications ordered in the state was ordered during the months of January, February and March. Furthermore, it was disclosed that as the total number of full-time farm family equivalents per county, total number of county Extension staff members per county, total appropriation to county agricultural agents per county and total real and personal assessed taxable property per county increased, the numbers of copies of agricultural-titled Extension publications ordered for the state also increased. Multiple correlation analysis disclosed that when five

selected county Extension program variables were correlated with the total number of copies of publications ordered, the county appropriation to county agricultural agents was the most accurate predictor of the total number of copies of publications ordered for the state. The numbers of full-time farm family equivalents constituted the best indicator for low order counties. It was implied that state staffs responsible for funding and distributing such publications, and district supervisors responsible for training county personnel should make appropriate use of findings. Recommendations for further study were included.

RESEARCH SUMMARY*

I. INTRODUCTION

Because of the increasing expenditures of funds for Tennessee agricultural-titled Extension publications during the period 1955-1967, this benchmark publication study was designed to provide a basis for considering future such expenditures. The purposes of the study were:

1. To determine if the recommended ordering procedures were being followed; (a) regarding use of the correct order form (i.e. Publication Form 559); (b) regarding completion of the order form by the correct person (i.e. by the county agricultural agent); (c) regarding ordering at correct intervals (i.e. the total number of orders to average no more than one every two months); and (d) regarding "pooling" of orders (i.e. to include both agricultural-titled and non-agricultural-titled Extension publications).

2. To determine which classes and numbers within classes of agricultural-titled Extension publications studied were being ordered most frequently, in largest numbers and in greatest size of order per county.

3. To determine which classes and numbers within classes of agricultural-titled Extension publications studied were on hand, in greatest supply, at the time of inventory.

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4. To determine the total numbers of agricultural-titled Extension publications ordered, 1965-1967, and in inventory, 1967; the total numbers of copies of publications ordered by quarterly intervals, and the total numbers of orders, 1965-1967, for such publications.

5. To determine if any relationships existed between selected county Extension program-related factors and certain agricultural-titled Extension publication ordering patterns.

Research Methodology

Regarding research methods used for the present study, data drawn from 1,559 publication order forms on file from all Tennessee counties for the period 1965-1967 were comparatively analyzed according to total, high order counties (numerically ranking from first through thirty-second in numbers of copies of publications ordered), medium order counties (numberically ranking from 33-63), and low order counties (numerically ranking from 64-95). Tabulated data were reported in numbers, percents and averages were appropriate.

Supplemental data were collected for all counties from records in the offices of Tennessee Extension Service administrators and district supervisors, and from appropriate United States and Tennessee Censuses and other reports. Multiple regression analyses were made with the assistance of The University of Tennessee Computing Center.

II. MAJOR FINDINGS

The Following of Recommended Ordering Procedures

Findings presented in this section concern the use of the four recommended publication ordering procedures, namely: (1) use of Order

Form 559; (2) initiation of orders by the county agricultural agent; (3) county staffs averaging not more than one order every two months; (4) "pooling" orders to include both agricultural-titled and non-agricultural-titled Extension publications needed by the county staff.

Ordering procedure A: Use publication order Form 559

Analysis of data related to this recommended ordering procedure indicated the following:

1. Eighty-eight percent of all orders (94 percent for high order and 84 percent for low order counties) for agricultural-titled Extension publications were made on Form 559.

2. An average of 14.45 orders on Form 559 per county (17.44 for the high and 10.56 for low order counties was recorded for the two-year period studied.

3. The percent of all agricultural-titled Extension publication orders per county on Form 559 ranged from 0-100 percent for the state (50-100 percent for high order and 0-100 percent for low order counties).

4. Eighty-four percent of the county staffs (97 percent of the high and 75 of the low order county staffs) used Form 559 in making three-fourths or more of their publication orders during the period, 1965-1967.

Ordering procedure B: Have county agricultural agent initiate the orders. Analysis of data relating to this recommended procedure revealed the following:

1. Ninety-one percent of all agricultural-titled Extension publication orders (88 percent for high order and 95 percent for low order counties) were initiated by the county agricultural agent.

2. An average of 15.01 orders per county was initiated by the county agricultural agents in the state during the two-year period, 1965-1967 (16.41 orders for high and 11.90 orders for the low order counties).

3. The percent of orders initiated by the county agricultural agent per county staff ranged from 31-100 percent for the state (31-100 percent for high order and 62-100 percent for low order counties).

4. Ninety-two percent of the county Extension staffs (84 of the high and 94 of the low order county staffs) had the county agricultural agent initiate the order in three-fourths or more of their publication orders during the period.

Ordering procedure C: Average not more than one order ever two months. Analysis of data concerning this recommended ordering procedure revealed the following:

1. Sixty-seven percent of all agricultural-titled Extension publication orders (62 percent for high order and 81 percent for low order counties) were made to average not more than one order every two months per year.

2. The average number of orders per county for the state was 16.41 (18.63 for the high and 12.56 for the low order counties), or 4.41 average orders above the recommended 12 orders (not to average more than one order every two months for the two-year study period).

3. Sixty-two percent of the county Extension staffs (53 of the high and 81 of the low order county staffs) averaged making not more than one order every two months in three-fourths or more of their publication orders during the period, 1965-1967.

Ordering procedure D: "pool" orders (with both agricultural-titled and non-agricultural-titled Extension publications. Analysis of data related to this recommended ordering procedure showed the following:

1. Sixty-one percent of all orders (66 percent for high order and 55 percent for low order counties) for agricultural-titled Extension publications in the state were "pooled."

2. The average number of orders "pooled" per county for the state was 10.01 (12.25 for high order and 6.87 for low order counties).

3. The range in percent of orders being "pooled" by staffs in individual counties for the state was from 14-100 percent (14-100 percent for high order and 24-100 percent for low order counties).

4. Forty percent of the county Extension staffs in the state "pooled" orders (47 percent for high order and 38 percent for low order counties) in making three-fourths or more of their publication orders, 1965-1967.

Regarding Classes and Numbers Within Classes of Agricultural-titled Extension Publications Ordered Most Frequently in Largest Numbers, and in Greatest Size per Order

Findings presented in this section concerned which classes and numbers within classes of agricultural-titled Extension publications were

being ordered most frequently, in largest numbers and in greatest size per order. The eleven title classes (in descending rank order according to total number of copies of publications ordered) of agricultural Extension publications studied were, namely: (1) farm crops and fertilizers; (2) fruits and vegetables; (3) insects, plant diseases and pests; (4) animal husbandy-beef; (5) landscaping and lawns; (6) animal husbandry-hogs; (7) dairy; (8) forestry; (9) agricultural economics; (10) animal husbandry-sheep; and (11) poultry. Title classes one through three accounted for slightly more than two-thirds (68 percent) of the total number of copies of agricultural-titled Extension publications ordered in the state, 1965-1967.

Farm crops and fertilizer title class. Analysis of data related to this publication class revealed the following:

1. Thirty percent of all agricultural-titled Extension publications ordered in the state (31 percent for high order and 27 percent for low order counties) were accounted for by this title class.

2. Numerically, 118,965 copies of Extension publications ordered in the state from this title class (72,615 copies for the high order and 14,606 copies for the low order counties).

3. The average number of orders per county with publications in this class for the state was 6.35 (7.62 for the high order and 4.62 for the low order counties).

4. The average number of copies of publications in this title class per order per county for the state was 197.29 (297.60 copies for high order and 98.69 copies for low order counties).

5. Of the 11 different titles in this class, county staffs for the state averaged ordering 6.57 titles (7.38 for the high order and 5.50 for the low order counties).

Fruits and vegetables title class. Data concerning this publication class indicate the following:

1. Twenty-four percent of all agricultural-titled Extension publications ordered in the state (25 percent for high order and 23 percent for low order counties) were accounted for by this title class.

2. Numerically, 95,565 copies of Extension publications ordered in the state were from this title class (57,564 copies for the high order and 12,442 copies for the low order counties).

3. The average number of orders per county with publications in this class for the state was 7.32 (8.72 for the high order and 5.44 for the low order counties).

4. The average number of copies of publications in this title class per order per county for the state was 137.50 (206.32 copies for high order and 71.51 copies for low order counties).

5. Of the 12 different titles in this class, county staffs for the state averaged ordering 8.18 titles (9.12 for the high order and 6.44 for the low order counties).

Insects, plant diseases and pests title class. A review of data related to this title class of Extension publications reveals the following:

1. Fourteen percent of all agricultural-titled Extension publications ordered in the state (14 percent for high order and 15 percent for low order counties) were accounted for by this title class.

2. Numerically, 55,071 copies of Extension publications ordered in the state were from this title class (32,165 copies for the high order and 7,854 copies for the low order counties).

3. The average number of orders per county with publications in this class for the state was 5.00 (5.97 for the high order and 3.69 for the low order counties).

4. The average number of copies of publications in this title class per order per county for the state was 115.94 (168.40 for high order and 66.56 for low order counties).

5. Of the ten different titles in this class, county staffs for the state averaged ordering 5.13 titles (6.19 titles for high order and 3.77 titles for low order counties).

Other title classes. Analysis of data concerning the animal husbandry-beef, landscaping and lawns, animal husbandy-hogs, dairy, forestry, agricultural economics, animal husbandry-sheep, and poultry title classes reveal the following:

1. Slightly less than one-third (32 percent) of the total copies of agricultural-titled Extension publications ordered in the state, 1965-1967, were accounted for by the eight classes (30 percent for the high order and 35 percent for the low order counties).

2. The three animal husbandry classes (beef, hogs and sheep) when combined accounted for 16 percent (60,327 copies) of the total copies of publications ordered in the state (14 percent, 33,328 copies. for high order and 17 percent, 9,028 copies, for low order counties.

3. The smallest number (less than 1 percent, 1,984 copies) of copies of all agricultural-titled Extension publications ordered in the state (less than 1 percent, 1,088 copies, for high order and less than 1 percent, 144 copies, for low order counties) were accounted for in the poultry title class.

Regarding Classes and Numbers of Agricultural-titled Extension Publications Studied Which Were on Hand, in Greatest Supply, at Time of Inventory

Findings presented in this section concern the classes and numbers of agricultural-titled Extension publications studied which were on hand, in greatest supply, at time of inventory. The eleven title classes in descending rank order according to total numbers of copies of agricultural Extension publications studied which were on hand, in greatest supply, at time of inventory. The eleven title classes in descending rank order according to total numbers of copies of agricultural Extension publications inventoried, 1967, and studied were, namely: (1) fruits and vegetables; (2) farm crops and fertilizers; (3) insects, plant diseases and pests; (4) dairy; (5) animal husbandry-beef; (6) forestry; (7) animal husbandry-hogs; (8) landscaping and lawns; (9) agricultural economics; (10) poultry; and (11) animal husbandry-sheep. Title classes one through four above accounted for slightly less than two-thirds (61 percent) of the total number of copies of agricultural-titled Extension publications on hand at time of inventory, 1967.

Fruits and vegetables title class. Findings related to this publication class included the following:

1. Eighteen percent of all agricultural-titled Extension publications inventoried, 1967, in the state (18 percent for high order and 19 percent for low order counties) were accounted for by this title class.

2. Numerically, 45,402 copies of Extension publications inventoried in the state (24,129 copies in high order and 8,310 copies in low order counties) were from this title class.

3. The average number of copies of publications on hand in this class at time of inventory per county for the state was 477.92 (754.03 copies for high order and 259.69 copies for low order counties).

4. Of the twelve different titles in this class, county staffs for the state averaged inventorying 9.60 titles (10.44 for high order and 8.56 for low order counties).

Farm crops and fertilizer title class. Study of data concerning this publication class indicate the following:

1. Seventeen percent of all agricultural-titled Extension publications inventoried, 1967, in the state, as well as for both high order and low order counties, were accounted for by this title class.

2. Numerically, 43,122 copies of Extension publications inventoried in the state (22,465 for high order and 7,583 for low order counties) were from this title class.

3. The average number of copies of publications on hand in this class at time of inventory per county for the state was 453,92 (702.03 copies for high order and 236.97 copies for low order counties).

4. Of the eleven different titles in this class, county staffs for the state averaged inventorying 6.75 titles (7.25 for high order and 5.97 for low order counties).

Insects, plant diseases and pests title class. Analysis of data relating to this publication class revealed the following:

1. Fifteen percent of all agricultural-titled Extension publications inventoried, 1967, in the state (16 percent for high order counties and 15 percent for low order counties) were from this title class.

2. Numerically, 37,239 copies of Extension publications inventoried in the state (20,911 for high order and 6,373 for low order counties) were from this title class.

3. The average number of copies of publications on hand this class at time of inventory per county for the state was 391.99 (653.47 copies for high order and 199.16 copies for low order counties).

4. Of the ten different titles in this class, county staffs for the state averaged inventorying 6.16 titles (6.78 for high order and 5.34 for low order counties).

Dairy title class. Study of data concerning this publication class revealed the following:

1. Eleven percent of all agricultural-titled Extension publications inventoried, 1967, in the state and high order counties (8 percent low order counties) were accounted for by this title class.

2. Numberically, 27,527 copies of Extension publications inventoried in the state (14,862 for high order and 3,733 for low order counties) were from this title class.

3. The average number of copies of publications on hand this class at time of inventory per county for the state was 289.76 (464.44 copies for high order and 116.66 copies for low order counties).

4. Of the eleven different titles in this class, county staffs for the state averaged inventorying 4.72 titles (5.59 for high order and 3.84 for low order counties).

Other title classes. Analysis of data concerning the animal husbandry-beef, forestry, animal husbandry-hogs, landscaping and lawns, agricultural economics, poultry, and animal husbandry-sheep title classes revealed the following:

1. Slightly more than one-third (39 percent) of the total copies of agricultural-titled Extension publications inventoried in the state, 1967, were accounted for by these seven classes (38 percent for high order and 41 percent for low order counties).

2. The three animal husbandry classes (beef, hogs and sheep) when combined accounted for 18 percent (56,881 copies) of the total copies of publications inventoried in the state (17 percent--30,243 copies--for high order and 20 percent--10,522 copies--for low order counties).

3. The smallest number (1 percent--2,813 copies) of copies of all agricultural-titled Extension publications inventoried in the state (1 percent--1,127 copies for high order and 2 percent--776 copies for low order counties) were accounted for in the animal husbandry-sheep title class.

Regarding Numbers of Copies of Publications Ordered and Inventoried, Number of Orders for Publications, and Numbers of Copies of Publications Ordered by Quarterly Intervals

Findings presented in this section concern the total number of copies of agricultural-titled Extension publications ordered and inventoried, the number of orders for publications, and number of copies of publications ordered by quarterly intervals during the two year period, 1965-1967.

Total number of copies of publications ordered and inventoried. Analysis of data pertaining to the total number of copies of publications ordered and inventoried revealed the following:

1. Sixty-four percent (250,617 copies) of the total number of copies (393,985 copies) of agricultural-titled Extension publications ordered in the state, 1965-1967, were on hand at time of inventory, 1967.

2. High order counties had 58 percent (134,465 copies) of their total copies (230,168 copies) of Extension publications ordered on hand at time of inventory, 1967.

3. Low order counties had 82 percent (43,802 copies) of their total copies (53,580 copies) of agricultural-titles Extension publications order on hand at time of inventory, 1967.

Total number of orders for agricultural-titled Extension publications. Analysis of data relating to the number of orders for Extension publications revealed the following:

1. The total number of orders made for agricultural-titled Extension publications in the state, 1965-1967, was 1,559 (596 for high order and 402 for low order counties).

2. The average number of copies of publications per order for the state was 252.72 (386.19 for the high order and 133.28 for low order counties).

Total number of copies of Extension publications ordered by quarterly intervals. Findings relating to the number of copies of Extension publications ordered by quarterly intervals, 1965-1967, including the following:

1. Fifty percent (196,762 copies) of all the agricultural-titled Extension publications ordered in the state, 1965-1967, were ordered during the months of January, February, and March (51 percent--118,035 copies for high order and 46 percent--24,906 copies for low order counties).

2. Twenty-five percent (99,970 copies) of all Extension publications ordered in the state were ordered during the months of April, May, and June.

3. The smallest percent (12) of all copies (46,101 copies) of Extension publications ordered, 1965-1967, were ordered during the months of July, August, and September.

Regarding Relationships Between Selected County Extension Program Factors and Certain Agricultural-Titled Extension Publication Ordering Patterns

Findings presented in this section concern relationships between four dependent agricultural-titled Extension publications variables, namely: (1) total number of copies of agricultural-titled

Extension publications ordered; (2) total number of copies of agricultural-titled Extension publications ordered per full-time agricultural staff equivalent (FASE); (3) total number of copies of Agricultural-titled Extension publications in inventory, and (4) total number of orders for agricultural-titled Extension publications; and ten selected independent county Extension program variables, namely: (1) total number of county Extension staff members; (2) total number of FASEs per county; (3) total number of full-time farm family equivalents; (4) total number of full-time farm family equivalents per FASE; (5) total value of agricultural products sold; (6) total value of agricultural products sold per FASE; (7) total appropriation to county agricultural agents; (8) total appropriation to county agricultural agents per FASE; (9) total real and personal assessed taxable property, and (10) total real and personal assessed taxable property per FASE.

The relation between county Extension staff variables and agricultural-titled Extension publications variables. Statistical analysis of the data relating to the correlations between the two county Extension staff variables, (i.e. total number of county Extension staff members and total number of full-time agricultural staff equivalents; and three agricultural-titled Extension publications variables (i.e. numbers of publications ordered, numbers of publications inventoried and number of publication orders) revealed the following:

1. As the total number of county Extension staff members per county increased, there was a significant increase in the number of of copies of publications ordered (.05 level) and number of publication

orders (.01 level) for the state. The same was true for low order counties, though confidence levels were reversed (i.e., .01 and .05, respectively). This was not true for high order counties.

2. As the total number of FASEs increased, there was a significant increase in the number of copies of publications orderd for the state (.05 level). This relation was not significant for high and low order categories.

The relation between full-time farm family equivalent variables and agricultural-titled Extension publication variables. Findings relating to the correlations between the two farm family equivalent variables (total number of full-time farm family equivalents and total number of full-time farm family equivalents per FASE) and three agricultural-titled Extension publications variables (numbers of publications ordered, numbers of publications inventoried and numbers of publication orders) include the following:

1. As the number of full-time farm family equivalents per county increased, there was a significant increase (.01 level) in the total number of publications ordered for both the state and low order groups; and likewise there were increases in the numbers of publications inventoried (.05 level) and number of publication orders (.01 level) for these groups.

2. As the number of full-time farm family equivalents per county per FASE increased, there was a significant increase (.05 level) in the total number of copies of publications ordered only in the low order group, however, there were increases in both numbers of publications

inventoried (.05 level) and number of publication orders for the total state (.01 level).

The relation between county value of agricultural products sold variables and agricultural-titled Extension publications variables. Analysis of the data relating to the correlations between the two county value of agricultural products sold variables (total value of agricultural products sold and total value of agricultural products sold per FASE), and three agricultural-titled Extension publications variables, (numbers of publications ordered, numbers of publications inventoried and numbers of publications orders) revealed the following:

1. As the total value of agricultural products sold per county increased, there were significant increases in the numbers of publications ordered (.05 level) and number of publication orders (.01 level) only for the low order group.

2. As the total value of agricultural products sold per county per FASE increased there was a significant increase in the number of publication orders (.05 level) only for the low order county group.

The relation between county appropriation variables and agricultural-titled Extension publications variables. Study of data relating to the correlations between the two county appropriation variables (total appropriation to county agricultural agents and total appropriations to county agricultural agents per FASE), and three

agricultural-titled Extension publications variables (numbers of publications ordered, numbers of publications inventoried and number of publications orders) disclosed the following:

1. As the appropriation to county agricultural agents per county increased, there was a significant increase in the total number of publications ordered for both the state (.01 level) and low order county (.05 level) groups; and likewise, there was a significant increase in the number of publications orders (.01 and .05 levels, respectively) for these groups.

2. As the appropriation to county agricultural agents per county per FASE increased, there was a significant increase in the total number of publications ordered for both the state (.05 level) and low order (.01 level) groups; likewise, there was a significant increase in the number of publications inventoried for the state (.05 level) and a significant increase in the number of publication orders for the state (.01 level), high (.05 level) and low order (.05 level) groups.

The relation between county real and personal assessed taxable property variables and agricultural-titled Extension publications variables. Analysis of the data relating to the correlations between the two county real and personal assessed taxable property variables (total real and personal assessed taxable property and total real and personal assessed taxable property per FASE) and three agricultural-titled Extension publication variables (numbers of publications ordered, numbers of publications inventoried and numbers of publications orders) revealed the following:

1. As the total real and personal assessed taxable property per county increased, there was a significant increase in the total number of publications ordered for both the state (.01 level) and low order (.05 level) county groups; likewise, there was a significant increase in the number of publication orders for both the state (.01 level) and high order (.05 level) county groups.

2. As the real and personal assessed taxable property per county per FASE increase, there was a significant increase in the total number of publications ordered for the state (.01 level); and significant increases in the number of publication orders for both (.01 level) the state and high order county groups.

Multiple correlation of five selected county Extension program variables with the total number of agricultural-titled Extension publications ordered variable. Analysis of the data related to the multiple correlation of five selected county Extension program variables, namely: (1) total number of county Extension staff members; (2) total number of full-time farm family equivalents; (3) total value of agricultural products sold; (4) total appropriation to county agricultural agents; and (5) total real and personal assessed taxable property, with the total number of agricultural-titled Extension publications ordered variable revealed the following:

1. The five selected program variables accounted for 13 percent of the variation in the total number of publications ordered in the state (16 percent for high order and 44 percent for low order counties).

2. The largest percent (10) of this variation in total number of publications ordered was accounted for by the total county appropriation to county agricultural agents variable; whereas the largest percent (35)

of variation in the low order counties was accounted for by the total number of full-time farm family equivalent variable.

3. Although 16 percent of the variation in total number of agricultural-titled Extension publications ordered was accounted for by the five program variables in the high order counties, none of the variables reached a significant level for either r or R.

4. The total county appropriation to county agricultural agents was the most accurate predictor of the total number of publications ordered in the state.

Multiple correlation of five selected county Extension program per full-time agricultural staff equivalent variables with the total numbers of agricultural-titled Extension publications ordered variable. Analysis of the data related to the multiple correlation of five selected county Extension program variables, namely: (1) total number of county Extension staff members per full-time agricultural staff equivalents (FASE); (2) total number of full-time farm family equivalents per FASE; (3) total value of agricultural products sold per FASE; (4) total appropriation to county agricultural agents per FASE; and (5) total real and personal assessed taxable property per FASE, with the total number of agricultural-titled Extension publications ordered variable revealed the following:

1. The five selected program variables accounted for 10 percent of the variation in the total number of publications ordered in the state (18 percent for high order and 37 percent for low order counties).

2. The largest percent (7) of the variation in total number of publications ordered in the state was accounted for by the total real and personal assessed taxable property variable; whereas, the largest percent (31) of variation in the low order counties was accounted for by the total county appropriation to county agricultural agents variable.

3. Although 18 percent of the variation in total number of agricultural-titled Extension publications ordered was accounted for by the five program variables in high order counties, none of the variables reached a significant level for either r or R.

4. The total county appropriation to county agricultural agents was the most accurate predictor of the total number of publications ordered for the low order counties.

Multiple correlation of five selected county Extension program variables with the total number of agricultural-titled Extension publications ordered per full-time agricultural staff equivalent variable. Analysis of the data related to the multiple correlation of five selected county Extension program variables, namely: (1) total number of county Extension staff members; (2) total number of full-time farm family equivalents; (3) total value of agricultural products sold; (4) total appropriation to county agricultural agents; and (5) total real and personal assessed taxable property with the total number of agricultural-titled Extension publications order per full-time agricultural staff equivalent (FASE) variable revealed the following:

1. The five selected program variables accounted for 6 percent of the variation in the total number of publications ordered per county per FASE in the state (43 percent for high order and 25 percent for low order counties).

2. The largest percent (32) of the variation in the high order counties was accounted for by the total number of county Extension staff members variable.

3. Although 6 percent (25 percent for low order counties) of the variation in total number of publications ordered per FASE were accounted for by the five program variables in the state, they did not reach a significant level for either r or R.

4. The total number of county Extension staff members was the most accurate predictor of the total number of publications ordered per FASE for the high order counties. All relations were negative ones (i.e. increase in the independent variables resulted in decreases in the dependent variable).

III. IMPLICATIONS

Some of the implications drawn based upon the findings of this benchmark study were:

1. Since statistical analyses of the data revealed that seven of the ten selected county Extension program factors were positively associated with the total number of copies of agricultural-titled Extension publications ordered in the state, and since there were wide ranges in the numbers of copies of these publications ordered by county staffs in high and low order counties, careful consideration of the

characteristic differences between high and low order counties should be given by state and district Extension personnel in planning and conducting county agricultural agent in-service training dealing with ordering procedures used with agricultural-titled Extension publications.

2. Because county staffs for the state were carrying inventories of approximately two-thirds of the total numbers of copies of agricultural-titled Extension publications ordered in a two year period, it would appear that publication expenditures could be reduced if consideration were given to decreasing the average number of copies of such publications ordered and carried in the county inventory (also, fewer copies of a publication would be on hand should it be withdrawn from print). Also, because 50 percent of the total numbers of copies of publications ordered were requested during the months of January, February and March, it appears that additional reductions in expenditures could result from having county staffs order more copies of publications in months other than January, February, and March. This would permit better scheduling of time for personnel in the state mailing room.

3. Since two-thirds of all copies of agricultural-titled Extension publications ordered in the state were from three of the eleven classes, and accounted for only 33 of the 80 titles studied, Extension specialist and departmental leaders in cooperation with program

personnel should give careful consideration to a more frequent review of the remaining eight publication classes and 47 titles for the purpose of determining if the title publications in print and available for distribution to county Extension staffs contain subject matter relevant to the current agricultural Extension teaching effort and, in fact, are needed.

4. Due to the observed variations in the ordering patterns of county Extension agents for agricultural-titled Extension publications in Tennessee and in anticipation of developing the best possible procedures for ordering and utilizing these publications, appropriate staff should be made familiar with the findings of this study.

5. Written Extension publication ordering procedures, which will bring about optimum use of publication funds, should be developed and distributed to all appropriate staff members.

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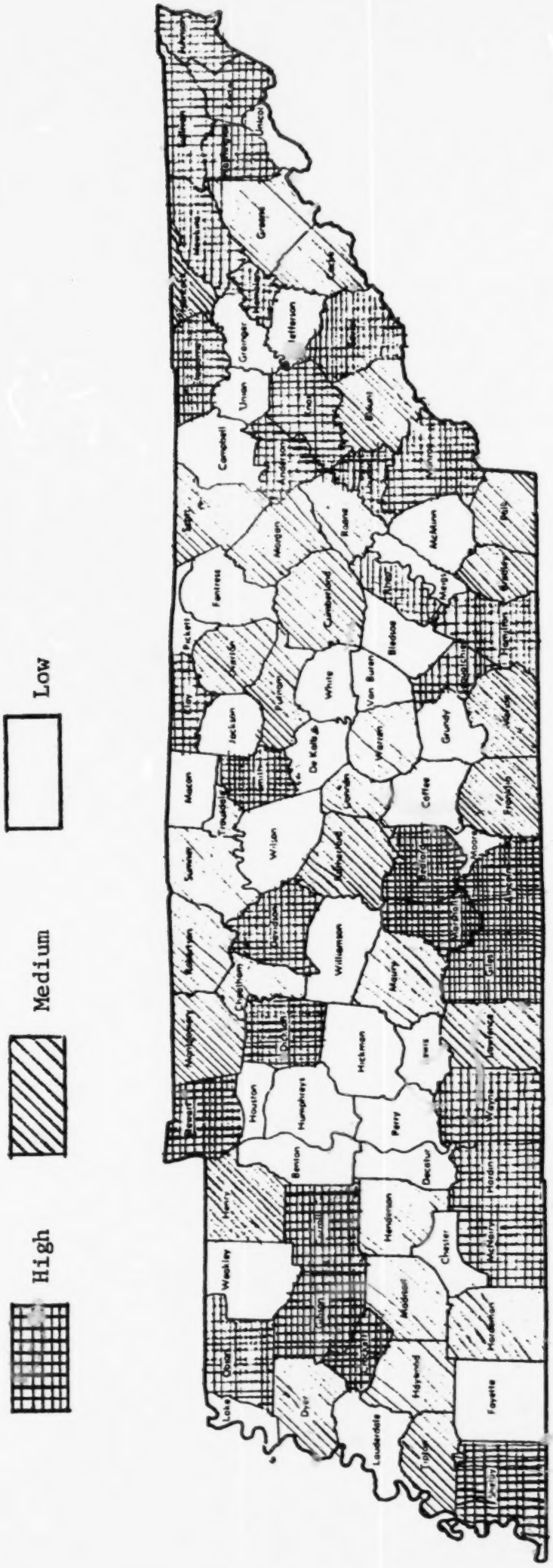

FIGURE 1

DISTRIBUTION OF COUNTIES IN THE AGRICULTURAL-TITLED EXTENSION PUBLICATION ORDER GROUPS; HIGH, MEDIUM AND LOW, 1965-1967, ACCORDING TO THEIR GEOGRAPHICAL LOCATION IN TENNESSEE

Appendix B

TABLE I

NUMBERS OF TENNESSEE COUNTIES IN THE AGRICULTURAL-TITLED EXTENSION PUBLICATION ORDER GROUPS ACCORDING TO RANGES IN TOTAL COPIES ORDERED PER COUNTY, 1965-1967

Total Copies Per County Publication Order Group	Number of Counties Analyzed	Range of Publications Ordered Per County Within Groups (Copies)
Low	32	225-2794
Medium	31	2795-4810
High	32	4811-13,300
Total	95	225-13,300

PUBLICATIONS ORDER BLANK

Date Order Received	Date Order Filled

Date _____ 19___
Name _____
County _____
P. O. Box No. _____
Street Address _____
Post Office _____
Zip Code _____

Instructions: Use this form in conjunction with the two publications order catalogs, EC 641, Tennessee Farm and Home Publications, Form 73, Popular Publications and Form 435, 4-H Publications and Materials.

This is an ordering form for ALL publications and bulletins stocked in the U-T Agricultural Extension mailing room.

1. Please list the publication(s) or bulletin(s) needed and mail this form to:
   Extension Mailing Room
   Box 1071
   Knoxville, Tennessee 37901
2. Please order EC's (Extension Circulars) and SC's (Special Circulars) and all other specified departmental materials DIRECTLY from the subject matter departments by separate letter or request—unless such materials are specially listed in Form 73 or Form 435 as being available through the Extension Mailing Room.
3. Please use Form FES 91A for ordering *all* USDA publications—unless such materials are specially listed in EC 641, Form 73 or Form 435 as being available through the Extension Mailing Room or subject matter department.

Number	Publication or Bulletin	Number Copies Needed	Special Instructions
Sample: Pub. 433	How to Control the Alfalfa Weevil	500	
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			

(Use additional forms if needed)

To be completed by Mailing Room:

The publications below were out of stock for the following (checked) reasons:

Publication	Being Reprinted	Held for Revision	Withdrawn (Killed)	Date Supply Expected	Please Reorder
1.					
2.					
3.					
4.					
5.					

Form No. 559
March 1965

Send White and Blue Copies to Extension Mailing Room
Keep Yellow Copy for Your Files.

FIGURE 2

PUBLICATIONS ORDER BLANK

APPENDIX D

List of Eighty Agricultural-Titled Extension Publications Studied

1965-1967

Agricultural Economics Title Class

PB 459 How to Keep and Use Farm Records
PB 473 What Sets Hog Prices
PB 483 Beef Shoppers Guide
PB 532 Outlook--A Key to Profits on Your Farm
PB 534 Guidelines to Forming Farmer Associations
PB 545 The Total Management Framework of Agri-Business Firms
PB 547 Divisions of Responsibility in Management in Agri-Business Firms
PB 557 Live Hog Future Trading
PB 562 Key Factors Affecting Farm Profits

Animal Husbandry-Beef Title Class

PB 330 Beef Cattle in Tennessee
PB 450 You Can Control Livestock Pests
PB 500 Summer Feed--One Key to 500-Pound Calves
PB 527 Let's Go Solo--Save our Little Ones
PB 542 TBCIP (Tennessee Beef Improvement Program)
PB 544 Tennessee Beef Cattle Calendar

Animal Husbandry-Hogs Title Class

PB 391 More Money from Hogs
PB 441 Country Style Pork
PB 453 Tennessee Feeder Pigs
PB 533 Why Produce the Meat-Type Hog?

Animal Husbandry-Sheep Title Class

PB 531 Your Spring Lamb Production Calendar
PB 539 Eight Steps to Spring Lamb Production

Dairy Title Class

PB 401 Raise Better Dairy Calves
Pb 416 Good Feeding Makes More Milk
PB 425 Raise Good Dairy Herd Replacements
PB 426 Milking the Easy Way with Parallel-Type Elevated Stalls
PB 427 Save Time and Labor with Layout and Equipment
PB 428 Use Rye and Oats to Grow More Fall and Early Spring Pasture

Dairy Title Class (continued)

PB 429 Milking the Easy Way with V-Type Elevated Stalls
PB 431 Food and Health Profits From the Home Milk Supply
PB 436 Managed Milking Means More Milk
PB 561 Machine Milking
Pb 423 Feed Your Cows for Profit

Farm Crops and Fertilizers Title Class

PB 358 Burley Tobacco Production in Tennessee
PB 378 Field Crop Seeding Guide
PB 381 Fertilizer Recommendations
PB 385 Chemical Weed Control for Field Crops
PB 395 Chemical Weed Control in Tobacco Beds
PB 421 Soybean Production
PB 424 Grow More Summer Pasture
PB 432 Cotton Production in Tennessee
PB 443 More Corn Per Acre
PB 480 Let's Control Johnson Grass
PB 533 How Good Is Your Feed

Forestry Title Class

PB 445 Marketing Woodland Products
PB 465 A Simple Method of Treating Fence Posts
PB 471 Planting Forest Tree Seedlings
PB 472 There's Cash in Salvage Timber
PB 474 How to Cut for the Top Dollar
PB 476 It Pays to Kill Scrub Trees
PB 528 Shaping Christmas Trees for Profit
PB 540 Write Your Own Timber Sale Agreement

Fruits and Vegetables Title Class

PB 344 Growing Strawberries in Tennessee
PB 363 Pepper Production in Tennessee
PB 375 Home Fruit Spray Schedule
PB 403 Commercial Tomato Production
PB 418 Recommended Vegetable Varieties
PB 419 Recommended Fruit Varieties
PB 420 Quality Sweet Potato Production
PB 446 Okra Production
PB 447 Vegetable Garden Guide
PB 452 Chemical Weed Control in Fruits and Vegetables
PB 475 The Pecan Tree for Nuts and Shade
PB 504 Selecting an Orchard Site

Insect and Plants Diseases Title Class

PB 349 Household Pest Control
PB 377 Crown Rot on Alfalfa Clover
PB 387 Cotton Insect Control
PB 393 Control of Poultry Pest
PB 433 Alfalfa Weevil Control
PB 506 Stop Field Crop Pest
PB 538 We, the Pest Killers
PB 554 Pesticide Dilution Table Based on Pounds Per Acre
PB 556 Pesticide Storage Locker You Can Build
PB 563 Pesticide Dilution Table Based on Active Ingredient in Finished Sprays

Landscape and Lawns Title Class

PB 326 Tennessee Lawns
PB 379 Planting and Care of Ornamental Trees and Shrubs
PB 454 Landscape Planning

Poultry Title Class

PB 415 Tennessee's 40 x 40 Poultry House
PB 463 Calcium for Layers
PB 501 Poultry Flock Vaccination
PB 524 Egg Handling Guide for Retailers

APPENDIX E

TABLE II

AGRICULTURAL-TITLED EXTENSION PUBLICATION ORDERING DATA IN ALL 95 COUNTIES, 1965-1967

County	Variable Number													
	v_1	y_2	y_3	y_4	x_5	x_6	x_7	x_8	x_9 (1000)	x_{10} (1000)	x_{11}	x_{12}	x_{13} (1000)	x_{14} (1000)
Anderson	6,495	5,196	3,661	31	4.2	1.25	1,842	1,474	1,311	1,049	2,594	2,470	19,485	15,58[illegible]
Bedford	6,675	5,256	5,348	14	4.25	1.27	1,778	1,400	6,133	4,829	2,258	2,213	14,746	11,61[illegible]
Benton	2,440	1,731	629	13	3.2	1.41	894	634	1,442	1,023	1,748	1,433	2,992	2,12[illegible]
Bledsoe	985	904	954	22	4.0	1.09	707	649	1,805	1,656	1,709	1,658	2,423	2,2[illegible]
Blount	3,001	2,522	1,446	41	4.2	1.19	2,794	2,348	4,120	3,463	2,292	2,315	51,521	43,29[illegible]
Bradley	4,631	3,172	911	38	4.45	1.46	1,737	1,190	4,859	3,328	2,649	2,171	14,108	9,6[illegible]
Campbell	1,635	1,308	607	12	4.2	1.25	1,437	1,150	1,286	1,028	2,080	1,981	4,510	3,60[illegible]
Cannon	3,200	2,500	5,366	5	3.0	1.28	1,068	834	2,061	1,610	1,530	1,195	3,106	2,427
Carroll	5,225	4,147	4,774	19	4.0	1.26	2,567	2,037	7,267	5,767	2,945	2,337	9,727	7,720
Carter	5,531	4,097	3,346	10	4.25	1.35	2,189	1,621	1,807	1,339	2,115	2,014	39,120	28,978
Cheatham	3,540	6,436	1,107	22	2.0	0.55	992	1,804	2,353	4,278	1,186	2,157	3,984	7,24[illegible]
Chester	1,660	1,297	1,721	17	3.0	1.28	1,051	821	4,005	3,129	2,372	1,853	3,370	2,6[illegible]
Claiborne	6,575	5,260	4,235	15	3.2	1.25	2,351	1,881	5,016	4,013	1,605	1,529	4,594	3,6[illegible]
Clay	6,490	4,954	3,238	12	3.0	1.31	903	689	2,226	1,699	1,326	1,012	1,509	1,15[illegible]
Cocke	3,250	2,664	1,036	12	3.2	1.22	1,902	1,559	5,524	4,528	2,034	1,994	7,452	6,108
Coffee	1,475	815	1,752	14	4.33	1.81	1,589	878	4,715	2,605	3,936	2,607	17,521	9,680
Crockett	13,300	6,856	4,337	21	4.0	1.94	2,128	1,097	11,660	6,010	3,019	1,556	12,848	6,62[illegible]
Cumberland	3,030	2,104	2,710	24	4.2	1.44	1,298	901	2,843	1,974	2,106	1,698	5,36[illegible]	3,72[illegible]
Davidson	6,228	2,673	4,464	34	7.0	2.33	8,164	3,504	4,951	2,125	6,584	4,771	670,261	287,66[illegible]
Decatur	1,825	857	1,958	6	5.0	2.13	919	431	1,832	860	1,849	1,541	2,120	99[illegible]
DeKalb	2,715	3,352	465	7	2.0	0.81	1,358	1,677	3,439	4,245	1,160	1,432	3,135	3,870
Dickson	6,300	5,526	3,043	12	4.2	1.14	1,458	1,279	3,125	2,741	2,552	2,527	6,660	5,842
Dyer	3,412	2,730	1,169	20	4.0	1.25	2,017	1,614	16,467	13,174	3,011	2,409	15,384	12,307
Fayette	2,594	1,104	1,872	16	6.0	2.35	3,284	1,397	15,466	6,581	3,361	2,453	7,590	3,230
Fentress	1,145	1,218	2,399	16	3.0	0.94	1,028	1,094	4,770	5,074	1,304	1,387	4,372	4,651

TABLE II (continued)

County	Variable Number													
	y_1	y_2	y_3	y_4	x_5	x_6	x_7	x_8	x_9 (1000)	x_{10} (1000)	x_{11}	x_{12}	x_{13} (1000)	x_{14} (1000)
Franklin	2,895	1,540	2,229	15	5.0	1.88	2,163	1,151	6,720	3,575	1,913	2,056	10,734	5,710
Gibson	9,250	1,447	4,668	22	5.0	2.08	4,367	2,100	21,583	10,376	4,672	2,246	23,956	11,51[illegible]
Giles	4,932	1,854	2,079	14	7.0	2.66	2,356	886	6,781	2,549	3,922	1,904	11,965	4,498
Grainger	3,125	978	1,898	10	3.0	1.15	1,670	1,452	4,048	3,520	1,460	1,270	3,760	3,270
Greene	3,525	1,855	5,091	19	5.0	1.90	4,533	2,386	16,058	8,451	5,145	2,708	23,453	12,344
Grundy	1,075	827	1,162	13	4.33	1.30	714	549	3,151	2,424	1,272	1,259	2,037	1,566
Hamblen	5,370	4,296	5,474	13	3.0	1.25	1,475	1,180	3,820	3,056	3,517	2,813	16,524	13,219
Hamilton	8,060	2,660	2,301	41	6.0	3.03	4,568	1,508	3,887	1,283	7,127	3,494	364,475	120,289
Hancock	3,450	4,600	2,144	16	1.2	0.75	1,274	1,699	2,707	3,610	720	1,200	2,071	2,764
Hardeman	2,860	1,288	348	10	6.0	2.22	1,983	893	8,257	3,719	2,567	2,021	5,689	2,563
Hardin	7,675	5,996	4,828	10	3.0	1.28	1,471	1,149	3,628	2,835	2,313	1,807	5,258	4,108
Hawkins	6,140	2,952	5,558	16	5.0	2.08	3,001	1,443	6,489	3,119	4,365	2,098	9,710	4,668
Haywood	3,381	1,509	789	21	5.0	2.24	3,104	1,386	14,381	6,420	2,995	2,396	9,507	3,351
Henderson	3,725	1,765	2,461	14	5.0	2.11	1,805	855	6,144	2,912	1,880	1,607	6,031	2,858
Henry	4,810	3,787	3,379	14	4.2	1.27	1,867	1,470	8,038	6,329	1,785	1,668	12,528	9,865
Hickman	2,750	2,331	2,528	10	4.2	1.18	1,116	946	2,653	2,248	1,570	1,570	4,587	3,887
Houston	2,285	3,047	1,389	10	2.2	0.75	436	581	709	945	935	1,700	1,657	2,209
Humphreys	1,700	1,371	1,022	8	4.2	1.24	888	716	1,988	1,603	2,150	2,048	10,413	8,398
Jackson	1,820	2,022	1,787	8	2.0	0.90	1,353	1,503	2,879	3,199	1,129	1,254	2,384	2,649
Jefferson	1,945	1,621	1,148	20	3.2	1.20	1,766	1,472	5,889	4,907	2,510	2,510	11,022	9,185
Johnson	11,490	8,511	3,560	32	3.25	1.35	1,465	1,085	3,452	2,557	1,635	1,277	5,974	4,425
Knox	5,580	2,232	4,148	11	6.2	2.50	7,336	2,934	6,505	2,602	5,725	3,948	247,848	99,139
Lake	225	281	353	2	1.0	0 80	706	883	8,189	10,236	2,400	3,000	7,300	9,12[illegible]
Lauderdale	2,423	2,125	1,464	27	3.0	1.14	2,615	2,294	14,139	12,402	3,294	2,889	7,827	6,866
Lawrence	2,975	1,720	3,239	25	5.0	1.73	2,389	1,381	5,303	3,065	3,282	1,897	13,297	7,686
Lewis	1,065	1,420	566	9	2.2	0.75	491	655	763	1,017	943	1,715	2,562	3,416
Lincoln	7,165	4,215	5,297	19	5.0	1.70	2,704	1,591	8,193	4,820	2,267	2,667	17,983	10,578
Loudon	5,380	4,483	2,618	18	3.2	1.20	1,439	1,199	3,793	3,161	2,100	2,100	7,045	5,871
McMinn	1,735	1,248	1,134	11	4.45	1.39	1,975	1,421	5,767	4,149	2,800	2,435	13,819	9,942

TABLE II (continued)

County	Variable Number													
	y_1	y_2	y_3	y_4	x_5	x_6	x_7	x_8	x_9 (1000)	x_{10} (1000)	x_{11}	x_{12}	x_{13} (1000)	x_{14} (1000)
McNairy	5,862	5.329	1,457	15	3.0	1.10	1,996	1,815	6,253	5,685	1,308	1.189	5,648	5,135
Macon	1,205	906	1,250	8	3.0	1.33	1,829	3,375	4,849	3,646	2,843	2,138	6,955	5,229
Madison	4,265	1,350	3,641	20	7.0	3.16	3,314	1,049	11,442	3,621	6,776	2,144	38,116	12,062
Marion	3,760	2,507	2,355	17	3.53	1.50	1,107	738	1,851	1,234	1,890	1,601	7,824	5,216
Marshall	7,865	5,741	4,025	22	3.25	1.37	1,596	1,165	5,227	3,815	3,236	2,889	8,493	6,199
Maury	3,160	2,307	1,779	14	6.0	1.37	2,617	1,910	7,793	5,689	3,799	2,773	43,825	31,989
Meigs	1,025	907	855	10	2.2	1.13	499	441	1,406	1,244	1,351	1,453	4,687	4,148
Monroe	4,895	3,138	5,357	7	4.45	1.56	1,894	1,214	5,163	3,310	3,029	2,294	6,877	4,408
Montgomery	3,260	2,810	2,331	31	5.0	1.16	2,488	2,145	7,493	6,459	3,099	2,671	26,421	22,776
Moore	1,045	933	1,131	8	2.25	1.12	489	437	1,581	1,412	1,197	1,376	2,081	1,858
Morgan	3,660	2,752	2,530	14	3.0	1.33	873	656	1,234	928	3,297	2,479	2,318	1,743
Obion	5,391	4,212	3,688	29	4.0	1.28	2,357	1,841	14,987	11,708	3,886	3,036	17,799	13,905
Overton	2,795	2,184	1,839	17	3.0	1.28	1,503	1,174	2,171	1,696	2,422	1,892	3,751	2,930
Perry	2,107	1,915	1,314	13	3.2	1.10	2,488	2,262	1,063	966	1,500	1,667	1,500	1,364
Pickett	810	964	1,016	14	2.0	0.84	592	705	1,172	1,395	996	1,186	1,580	1,880
Polk	3,930	2,933	3,097	10	3.25	1.34	710	530	941	702	2,229	2,026	7,414	3,533
Putnam	3,680	2,647	1,932	13	4.0	1.39	2,094	1,506	3,210	2,309	2,333	1,678	20,272	14,584
Rhea	5,927	4,858	3,972	26	4.4	1.22	919	753	1,497	1,227	2,233	2,189	3,881	3,181
Roane	4,675	3,896	2,639	18	4.2	1.20	1,685	1,404	1,586	1,321	2,070	2,070	15,698	13,082
Robertson	4,776	3,411	2,781	17	6.0	1.40	2,495	1,782	13,800	9,857	3,147	2,248	19,185	13,704
Rutherford	2,875	2,544	1,758	13	5.25	1.13	2,806	2,483	7,431	6,576	2,850	3,000	36,137	31,980
Scott	3,080	3,385	2,296	14	2.0	0.91	922	1,013	2,290	2,517	1,309	1,438	2,226	2,446
Sequatchie	8,768	5,158	3,601	21	3.0	1.70	383	225	897	528	1,506	2,007	1,684	990
Sevier	5,254	3,503	2,803	16	3.2	1.50	2,269	1,513	4,661	3,107	2,580	1,985	10,760	7,173
Shelby	9,450	1,356	3,280	25	11.0	6.97	7,054	1,012	16,290	2,337	22.167	3,682	1,272,123	182,514
Smith	5,470	4,082	4,295	16	3.0	1.34	1,911	1,426	6,293	4,696	2,798	2,088	7,048	5,260
Stewart	12,325	17,607	5,746	14	2.0	0.70	843	1,204	2.099	2,999	840	1,200	1,726	2,466
Sullivan	9,575	4,788	4,299	24	5.0	2.00	4,324	2,162	5,422	2,711	5,470	2,735	117,618	58,809
Sumner	3,471	3,732	3,416	32	4.0	0.93	3,281	3,528	10,982	11,809	2,190	2,355	19,141	20,582
Tipton	2,940	916	1,102	13	6.0	3.21	2,915	908	15,312	4,770	5,670	1,800	9,479	2,953

TABLE II (continued)

County	Variable Number													
	y_1	y_2	y_3	y_4	x_5	x_6	x_7	x_8	x_9 (1000)	x_{10} (1000)	x_{11}	x_{12}	x_{13} (1000)	x_{14} (1000)
Trousdale	4,650	5,536	4,254	15	2.0	0.84	687	818	2,722	3,241	990	1,179	3,128	3,724
Unicoi	2,025	2,700	2,290	7	2.25	0.75	952	1,269	1,060	1,413	1,443	2,220	4,124	5,499
Union	916	1,309	1,480	14	1.2	0.70	964	1,377	1,550	2,215	450	900	1,720	2,454
Van Buren	575	719	902	6	2.0	0.80	354	443	625	781	961	1,202	1,059	1,324
Warren	3,575	2,008	1,356	7	5.0	1.78	1,798	1,010	7,255	4,076	3,269	1,836	6,958	3,909
Washington	9,235	6,369	9,485	8	4.25	1.45	3,394	2,341	9,210	6,352	3,250	3,095	34,182	23,574
Wayne	5,830	5,070	5,418	9	3.2	1.15	1,133	985	1,749	1,521	1,482	1,560	2,525	2,196
Weakley	2,575	2,028	2,720	20	4.0	1.27	2,718	2,140	11,217	8,833	2,891	2,276	13,169	10,369
White	2,220	1,597	1,147	21	4.0	1.39	1,470	1,058	4,175	3,004	1,728	1,243	5,127	3,681
Williamson	2,725	2,290	1,338	15	5.2	1.19	2,087	1,754	8,006	6,728	3,170	3,202	25,162	21,145
Wilson	2,190	1,991	1,720	15	5.0	1.10	2,327	2,115	9,029	8,209	4,065	3,695	22,945	20,859

NOTE: y_1 = total number of copies of agricultural-titled Extension publications ordered.
y_2 = total number of copies of agricultural-titled Extension publications ordered per full-time agricultural staff equivalent (FASE).
y_3 = total number of copies of agricultural-titled Extension publications in inventory.
y_4 = total number of orders for agricultural-titled Extension publications.
x_5 = total number of county Extension staff members.
x_6 = total number of full-time agricultural staff equivalents (FASE).
x_7 = total number of full-time farm family equivalents.
x_8 = total number of full-time farm family equivalent per full-time agricultural staff equivalent (FASE).
x_9 = total value of agricultural products sold.
x_{10} = total value of agricultural products sold per full-time agricultural staff equivalent (FASE).
x_{11} = total appropriation to County Agricultural Agents.
x_{12} = total appropriation to County Agricultural Agents per full-time agricultural staff equivalent (FASE).
x_{13} = total real and personal assessed taxable property.
x_{14} = total real and personal assessed taxable property per full-time agricultural staff equivalent (FASE).

APPENDIX F

TABLE III

INTERCORRELATION BETWEEN PAIRS OF VARIABLES IN ALL 95 TENNESSEE COUNTIES, 1965-1967

Variable Number	y_1 r	y_2 r	y_3 r	y_4 r	x_5 r	x_6 r	x_7 r	x_8 r	x_9 r	x_{10} r	x_{11} r	x_{12} r	x_{13} r	x_{14} r
y_1	1.00	.75	.70	.35	.26	.23	.31	.13	.09	-.03	.32	.25	.28	.27
y_2		1.00	.56	.16	-.19	-.19	-.09	.09	-.11	-.01	-.15	-.03	-.08	-.04
y_3			1.00	.09	.17	.05	.25	.23	.01	.06	.17	.26	.12	.17
y_4				1.00	.35	.10	.32	.34	.03	.20	.29	.42	.29	.39
x_5					1.00	.45	.54	.26	.07	.12	.73	.62	.59	.54
x_6						1.00	.72	-.13	.74	-.03	.71	.30	.57	.40
x_7							1.00	.51	.63	.26	.67	.66	.62	.71
x_8								1.00	.06	.51	.18	.55	.18	.41
x_9									1.00	.45	.29	.19	.11	.06
x_{10}										1.00	.11	.25	-.08	-.04
x_{11}											1.00	.59	.87	.66
x_{12}												1.00	.51	.65
x_{13}													1.00	.86
x_{14}														1.00

NOTE: r = .21 is significant at .05 level. r = .27 is significant at .01 level.

y_1 = total number of copies of agricultural-titled Extension publications ordered.

y_2 = total number of copies of agricultural-titled Extension publications ordered per full-time agricultural staff equivalent (FASE).

y_3 = total number of copies of agricultural-titled Extension publications in inventory.

y_4 = total number of orders for agricultural-titled Extension publications.

x_5 = total number of county Extension staff members.

x_6 = total number of full-time agricultural staff equivalents (FASE).

x_7 = total number of full-time farm family equivalents.

TABLE III (continued)

x_8 = total number of full-time farm family equivalent per full-time agricultural staff equivalent (FASE).
x_9 = total value of agricultural products sold.
x_{10} = total value of agricultural products sold per full-time agricultural staff equivalent (FASE).
x_{11} = total appropriation to County Agricultural Agents.
x_{12} = total appropriation to County Agricultural Agents per full-time agricultural staff equivalent (FASE).
x_{13} = total real and personal assessed taxable property.
x_{14} = total real and personal assessed taxable property per full-time agricultural staff equivalent (FASE).

TABLE IV

INTERCORRELATION BETWEEN PAIRS OF VARIABLES IN 32 HIGH ORDER TENNESSEE COUNTIES, 1965-1967

Variable Number	y_1 r	y_2 r	y_3 r	y_4 r	x_5 r	x_6 r	x_7 r	x_8 r	x_9 r	x_{10} r	x_{11} r	x_{12} r	x_{13} r	x_{14} r
y_1	1.00	.56	.22	.26	.00	.18	.13	-.13	.22	.08	.14	-.15	.14	.04
y_2		1.00	.26	-.12	-.57	-.46	-.47	-.22	-.35	-.06	-.42	-.47	-.33	-.33
y_3			1.00	-.34	-.13	-.18	.02	.23	.12	.22	-.11	.13	-.13	-.08
y_4				1.00	.31	.29	.32	.13	.13	.00	.31	.39	.38	.47
x_5					1.00	.90	.79	.26	.46	-.09	.88	.66	.84	.72
x_6						1.00	.68	.04	.48	-.12	.96	.50	.90	.63
x_7							1.00	.73	.45	.06	.70	.80	.76	.87
x_8								1.00	.29	.32	.13	.61	.24	.56
x_9									1.00	.78	.50	.27	.33	.17
x_{10}										1.00	-.05	.02	-.18	-.01
x_{11}											1.00	.59	.93	.67
x_{12}												1.00	.63	.79
x_{13}													1.00	.47
x_{14}														1.00

NOTE: r = .35 is significant at .05 level.
r = .45 is significant at .01 level.

y_1 = total number of copies of agricultural-titled Extension publications ordered.
y_2 = total number of copies of agricultural-titled Extension publications ordered per full-time agricultural staff equivalent (FASE).
y_3 = total number of copies of agricultural-titled Extension publications in inventory.
y_4 = total number of orders for agricultural-titled Extension publications.
x_5 = total number of county Extension staff members.
x_6 = total number of full-time agricultural staff equivalents (FASE).

TABLE IV (continued)

x_7 = total number of full-time farm family equivalents.
x_8 = total number of full-time farm family equivalent per full-time agricultural staff equivalent (FASE).
x_9 = total value of agricultural products sold.
x_{10} = total value of agricultural products sold per full-time agricultural staff equivalent (FASE).
x_{11} = total appropriation to County Agricultural Agents.
x_{12} = total appropriation to County Agricultural Agents per full-time agricultural staff equivalent (FASE).
x_{13} = total real and personal assessed taxable property.
x_{14} = total real and personal assessed taxable property per full-time agricultural staff equivalent (FASE).

TABLE V

INTERCORRELATION BETWEEN PAIRS OF VARIABLES IN 32 LOW ORDER TENNESSEE COUNTIES, 1965-1967

Variable Number	y_1 r	y_2 r	y_3 r	y_4 r	x_5 r	x_6 r	x_7 r	x_8 r	x_9 r	x_{10} r	x_{11} r	x_{12} r	x_{13} r	x_{14} r
y_1	1.00	.78	.36	.33	.51	.32	.59	.36	.38	.24	.36	.56	.35	.30
y_2		1.00	.21	.11	-.02	-.30	.22	.30	.03	.10	-.05	.33	.12	.19
y_3			1.00	.23	.32	.25	.37	.23	.29	.18	.20	.28	.17	.12
y_4				1.00	.35	.19	.48	.25	.48	.39	.36	.42	.24	.18
x_5					1.00	.78	.56	.13	.42	.14	.64	.62	.54	.39
x_6						1.00	.47	.01	.41	.07	.56	.33	.25	.03
x_7							1.00	.72	.79	.62	.71	.65	.54	.45
x_8								1.00	.51	.53	.47	.48	.39	.46
x_9									1.00	.90	.75	.52	.56	.51
x_{10}										1.00	.64	.39	.54	.59
x_{11}											1.00	.78	.82	.72
x_{12}												1.00	.79	.72
x_{13}													1.00	.96
x_{14}														1.00

NOTE: r = .35 is significant at .05 level.
r = .45 is significant at .01 level.

y_1 = total number of copies of agricultural-titled Extension publications ordered.
y_2 = total number of copies of agricultural-titled Extension publications ordered per full-time agricultural staff equivalent (FASE).
y_3 = total number of copies of agricultural-titled Extension publications in inventory.
y_4 = total number of orders for agricultural-titled Extension publications.
y_5 = total number of county Extension staff members.
y_6 = total number of full-time agricultural staff equivalents (FASE).

TABLE V (continued)

x_7 = total number of full-time farm family equivalents.
x_8 = total number of full-time farm family equivalent per full-time agricultural staff equivalent (FASE).
x_9 = total value of agricultural products sold.
x_{10} = total value of agricultural products sold per full-time agricultural staff equivalent (FASE).
x_{11} = total appropriation to County Agricultural Agents.
x_{12} = total appropriation to County Agricultural Agents per full-time agricultural staff equivalent (FASE)
x_{13} = total real and personal assessed taxable property.
x_{14} = total real and personal assessed taxable property per full-time agricultural staff equivalent (FASE)

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